CLAIMS

What is claimed is:

1. A method for providing seamless connection over a communication network for a Systems Network Architecture (SNA) session between a SNA Client and a remote SNA server, said method comprising the steps of:

receiving at an access device for said communications network and from said SNA client a request for establishing a session with a SNA server that provides services to said SNA client, said request including an identification of the SNA client;

selecting a communication path within the communication network to access said SNA server by referring to a configuration table of said access device, said configuration table comprising one or more communication paths leading to one or more SNA servers for each SNA client that is connected to said access device; and

forwarding the session request to said SNA server along the selected communication path.

2. The method of Claim 1, further comprising the step of routing traffic associated with the session to the SNA server via the selected communication path.

3. The method of Claim 2, wherein said step of selecting a communication path further comprises the step of selecting one server from among a plurality of servers associated with the SNA client according to pre-

determined criteria selected from among network and server performance, server availability, and load balancing.

4. The method of Claim 3, wherein said SNA client and an access device are connected on a Local Area Network, and wherein said step of receiving a request for establishing a session is preceded by the steps of:

receiving on said Local Area Network an Address Resolution Protocol (ARP) request, said ARP request comprising the Internet Protocol (IP) address of a server the SNA client wants to access; and

sending an ARP response to the SNA client, said ARP response comprising the Medium Access Control (MAC) address of the access device on the Local Area Network.

5. The method of Claim 4, further comprising the step of, for each SNA client, defining said configuration table with an identification of the SNA client including a SNA Logical Unit (LU) name, one or more communication paths from the access device to the one or more servers associated with said SNA client, and an identification of said one or more servers including an Internet Protocol (IP) address.

6. The method of Claim 5, wherein said step of defining said configuration table further comprises the step of specifying a default communication path to access a server for SNA clients that are not identified in the configuration table.

7. The method of Claims 6, wherein each server comprises a configuration file comprising a list of SNA

clients for which the server provides services, and for each of said SNA clients, a communication path within the communication network between the access device and said server, and wherein said step of defining a configuration table further comprises the step of:

retrieving and consolidating the configuration files of each of said server in a single configuration table locally stored within the access device.

8. The method of Claim 7, wherein said SNA client is identified by a SNA Logical Unit name, and said session request comprises the SNA Logical Unit name of the SNA client.

9. The method of Claim 8, wherein said communication network is a Wide Area Network (WAN) based on a networking technology from among Frame Relay (FR), Asynchronous Transfer Mode (ATM), Switched Multi-megabit Data Services (SMDS) or Integrated Services Digital Network (ISDN).

10. The method of Claim 9, wherein said communication paths are Permanent Virtual Circuits (PVCs) identified within said WAN.

11. The method of Claim 10, wherein the access device attaches one or more SNA clients by serial links and Local Area Networks (LAN).

12. The method of Claim 11, wherein said SNA operates a Telnet session with services from among a Telnet 3270 service and a Telnet 3270 enhanced service, and wherein said server is a Telnet server and said SNA client

executes Telnet client services.

13. An access device for a communications network, said access device comprising:

a receiving port for receiving a session request from a connected SNA client;

a processing unit that selects a particular one of at least one SNA server connected to the communications network for routing said session request; and

a transmitting port for providing a session connection between said SNA client and said particular SNA server via a virtual circuit connecting said SNA server with said access device across said communications network.

14. The access device of Claim 13, further comprising a configuration table that provides a list of SNA clients and Internet Protocol addresses of associated SNA servers that support said SNA clients along with a permanent virtual link by which one of said associated SNA servers may be connected to said SNA client when said session request is received by said access device.

15. The access device of Claim 14, further comprising means for providing Internet Protocol services including an Address Resolution Protocol (ARP) that utilizes an IP address of said SNA server that is included in an ARP request message of said SNA client to determine which SNA server to select.

16. The access device of Claim 15, wherein multiple SNA servers support said SNA client and said processor selects one of said multiple SNA servers to connect said

session request by evaluating one or more of a plurality of criteria including network and server performance, server availability, and load balancing.

17. The access device of Claim 16, wherein said processing unit selects a default communication path including a default SNA server when a SNA client requesting a session is not identified within said configuration table.

18. The access device of Claim 17, further comprising logic for, in response to receiving an Address Resolution Protocol (ARP) request comprising the Internet Protocol (IP) address of a server the SNA client wants to access, sending an ARP response to the SNA client, said ARP response comprising the Medium Access Control (MAC) address of the access device.

19. A network comprising:

at least one Systems Network Architecture (SNA) client;

at least one SNA server; and

an access device for enabling a session between said at least one SNA client and said at least one SNA server by establishing a virtual circuit with said SNA server across said network.

20. The network of Claim 19, wherein said access device is connected to said at least one SNA client via a direct link.

21. The network of Claim 19, wherein said access device is connected to said at least one SNA client via a local area network.

22. The network of Claim 19, wherein said access device comprises:

a receiving port for receiving a session request from said at least one SNA client;

a processing unit that selects a particular one of said at least one SNA server for routing said session request; and

a transmitting port for providing a session connection between said at least one SNA client and said particular SNA server via said virtual circuit.

23. The network of Claim 22, wherein said access device further comprises a configuration table that provides a list of SNA clients and Internet Protocol addresses of associated SNA servers that support said SNA clients along with a permanent virtual link by which one of said associated SNA servers may be connected to said SNA client when said session request is received by said access device.

24. The network of Claim 23, wherein said access device further comprises means for providing Internet Protocol services including an Address Resolution Protocol (ARP) that utilizes an IP address of an SNA server that is included in an ARP request message of said SNA client to determine which one of said at least one SNA server to select.

25. The network of Claim 24, wherein multiple SNA servers supports one of said SNA clients and said processing unit of said access device selects one of said multiple SNA servers to connect said session request by evaluating one or more of a plurality of criteria including network and server performance, server availability, and load balancing.

26. The network of Claim 25, wherein said processing unit selects a default communication path including a default SNA server when a SNA client requesting a session is not identified within said configuration table.

27. The network of Claim 26, wherein said access device further comprises logic for, in response to receiving an Address Resolution Protocol (ARP) request comprising the Internet Protocol (IP) address of a server the SNA client

wants to access, sending an ARP response to the SNA client, said ARP response comprising the Medium Access Control (MAC) address of the access device.

28. A computer program product comprising:

a computer readable medium; and

program instructions on said computer readable medium for:

receiving from an SNA client a request for establishing a session with a SNA server that provides services to said SNA client, said request including an identification of the SNA client;

selecting a communication path within the communication network to access said SNA server by referring to a configuration table of said access device, said configuration table comprising one or more communication paths leading to one or more SNA servers for each SNA client that is connected to said access device; and

forwarding the session request to said SNA server along the selected communication path.

29. The computer program product of Claim 28, wherein said program instructions for selecting a communication path further comprises program instructions for selecting one server from among a plurality of servers associated with the SNA client according to pre-determined criteria selected from among network and server performance, server availability, and load balancing.

30. The computer program product of Claim 29, further comprising program instructions for selecting a default communication path to access a server for SNA clients

that are not identified in the configuration table.